**UBLICATION NUMBER** 

02053656

**UBLICATION DATE** 

22-02-90

PPL ICATION DATE

15-08-88

PPL ICATION NUMBER

63202848

PLICANT:

KAWAI KIWAMU:

**VENTOR:** 

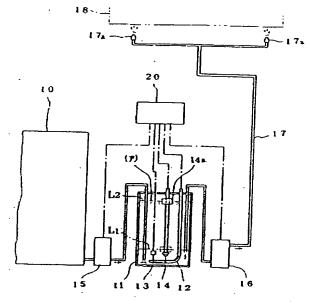
KAWAI KIWAMU;

T.CL.

B60S 1/48 B60S 1/46

TLE

WINDOW WASHER FOR AUTOMOBILE



## STRACT:

PURPOSE: To permit washer fluid to be promptly obtained of necessary quantity and temperature by small consumption of power by providing a subtank of smaller capacity than a main tank and controlling an electric heater, provided in this subtank, to be electrified by a temperature detecting switch.

CONSTITUTION: A subtank 11 is placed in a condition that it communicates with a main tank 10, and washer fluid in the subtank 11 is always maintained in a range of predetermined fluid level by starting and stopping a supply pump 15 through a control unit 20 in cooperation with upper and lower limit switches of a float 14a in a fluid level detecting switch 14. When a temperature of the washer fluid in this subtank 11 decreases not more than a predetermined value (about 60°C), a temperature detecting switch 13 operates being turned on, and a flow of electric current in an electric heater 12 under the on-condition of a heater switch heats the washer fluid in the subtank 11. The washer fluid, placed in a heated condition, is jetted from injection nozzles 17a when a delivery pump 16 is actuated.

COPYRIGHT: (C)1990, JPO& Japio